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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,122	04/01/2004	Takayuki Kondo	119127	8020
25944	7590	10/03/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			MOONEY, MICHAEL P	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/814,122

Applicant(s)

KONDO, TAKAYUKI

Examiner

Michael P. Mooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 10 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/1/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-9, 11-12, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan et al. (5455703).**

Duncan et al. teaches fiber optic transceiver module, comprising: a block (fig. 1B nos. 16, 26, 28a-b) including an optical waveguide (see, e.g., fig. 2 nos. 48, 33) including a branch 35 having a blind end (col. 4 lines 30-33).

Furthermore, although Duncan et al. does not explicitly state "a concave guide into which an optical fiber is inserted" it would have been obvious to do so because it is conventional to insert/include a fiber device in the through-hole/opening of devices such connector device 52 shown in Duncan et al. figure 2.

One of ordinary skill in the art at the time the invention was made would have been motivated to insert/include a fiber device in the through-hole/opening of devices such connector device 52 for the purpose of enhancing optical coupling.

Additionally, Duncan et al. teaches connector device 52 is provided to at least one end of the optical waveguide 33 (fig. 2); and an optical element with a light emitting or receiving surface attached to the block (see, e.g. , fig. 1B nos. 37, 38, 39, 40), the optical element being a light emitting device or a light receiving device (fig. 1B nos. 37, 38, 39, 40), the light emitting or receiving surface being disposed so as to face the other end of the optical waveguide (fig. 1B).

Thus claim 1 is rejected.

Duncan et al. teaches the optical element being employed in a tile-like element (fig. 1B). Thus claim 2 is rejected.

Although Duncan et al. does not explicitly state the "optical element being flip-chip mounted on the block" it would have been obvious to do so because it is conventional to flip chip mount LEDs, such as element 40 of fig. 1B, to packages such as the package of fig. 1B.

One of ordinary skill in the art at the time the invention was made would have been motivated to flip chip mount LEDs for the purpose of enhancing optical coupling, parts selection convenience, and/or package durability among other reasons.

Thus claim 3 is rejected.

Duncan et al. teaches the optical element being a optical fiber (fig. 1B nos. 37 and/or 39). Thus claim 4 is rejected.

Although Duncan et al. does not explicitly state the "the optical element being a surface emitting laser" it would have been obvious to do so because it is conventional to select from either surface emitting lasers or LEDs,

One of ordinary skill in the art at the time the invention was made would have been motivated to select a surface emitting laser to replace an LED for the purpose of enhancing performance by selecting an ideal light source for the given application.

Thus claim 5 is rejected.

Duncan et al. teaches the optical waveguide including a main path extending to the guide from the light emitting device and the branch, the branch being connected to the main path and aligned at an angle of ninety (90) degrees and below with respect to a light source side of the main path (fig. 1B; fig. 2). Thus claim 6 is rejected.

Duncan et al. teaches the branch being connected to the main path at an angle of forty-five (45) degrees and below with respect to the path positioned at the light source side of the main path (fig. 1B; fig. 2). Thus claim 7 is rejected.

Duncan et al. teaches the branch being provided with two or more paths (fig. 1B; fig. 2). Thus claim 8 is rejected.

Duncan et al. teaches the blind end of the branch being configured so as to attenuate or absorb light entering the blind end (col. 4 lines 30-33). Thus claim 9 is rejected.

Although Duncan et al. does not explicitly state the "blind end of the branch including an optical absorber at the edge of the blind end" it would have been obvious to do so because Duncan et al. does teach that end 35 is optically terminated to prevent

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reflections and it is conventional to prevent the reflections by including an optical absorber at the edge of the blind end (col. 4 lines 30-33).

One of ordinary skill in the art at the time the invention was made would have been motivated to include an optical absorber at the edge of the blind end for the purpose of preventing reflections. Thus claim 11 is rejected.

Furthermore, regarding claim 12, it is conventional to use a light scattering member in optical packages to prevent reflections. One of ordinary skill in the art at the time the invention was made would have been motivated to include an optical light scattering member at the edge of the blind end for the purpose of preventing reflections. Thus claim 12 is rejected.

Duncan et al. teaches the light receiving device being allocated to at least one of the blind end of the optical waveguide (fig. 1B). Thus claim 14 is rejected.

Duncan et al. teaches the optical waveguide including a light receiving path extended to the guide from a side of the block in a shape of substantially a straight line, the light receiving device being allocated to a side of the block so as to face an end of the receiving path. E.g., reference the optical fiber, discussed earlier which would reside in element no. 52 of figure 2. (fig. 1B; figure 2). Thus claim 15 is rejected.

Duncan et al. teaches a photo diode (col. 3 lines 10-15). Thus claim 16 is rejected.

Duncan et al. teaches electronic equipment (e.g., col. 3 lines 10-15). Thus claim 17 is rejected.

***Allowable Subject Matter***

Claims 10, 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art, either alone or in combination, does not disclose or render obvious the blind end of the branch being tapered at the edge of the blind end in combination with the rest of claim 10.

It is noted that the claim 10 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious the optical waveguide including a plurality of main forked paths each having one end exposed at a side of the block, and the light emitting device including a plurality of light emitting devices, each of the plurality of the light emitting devices being allocated to the side of the block so as to face each of the end of the forked main paths correspondingly, each of the plurality of the light emitting devices emitting light having different wavelength from each other in combination with the rest of claim 13.

It is noted that the claim 13 is allowable because the unique combination of each and every specific element stated in the claim.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

  
Michael P. Mooney  
Examiner  
Art Unit 2883

  
Frank G. Font  
Supervisory Patent Examiner  
Art Unit 2883

FGF/mpm  
9/27/05